PATENT SPECIFICATION

Application Date: Aug. 31, 1938. No. 25465/38. **518,590**

Complete Specification Left: Aug. 30, 1939.

Complete Specification Accepted: March 1, 1940.

PROVISIONAL SPECIFICATION

Improvements in or relating to Linings for Carpets

We, SMITH, STONE & KNIGHT, LIMITED, a Company organised under the Laws of Great Britain, of 84, Colmore Row, Birmingham, 3, in the County of Warwick, and THOMAS PARKER SMITH, a Subject of the King of Great Britain, of the Company's address, do hereby declare the nature of this invention to be as follows :—

This invention relates to linings for carpets of the kind which are placed between the carpet and the floor.

Hitherto such linings have been made of a felted, woollen or textile material, and one of the objects of the present invention is to provide a lining of an alternative material which is of a sufficiently soft character.

According to the present invention we provide a carpet lining which is made of a moisture proof felt paper.

By the term "felt paper" we mean paper known in the trade as "felt paper," such paper being soft, flexible and containing minute air spaces rendering it deformable under pressure and made, for example, of bagging, i.e. waste sacks, fibre dust, waste papers, although it should be understood that we do not limit our invention to felt paper made from these particular materials.

By making the lining from felt paper, a soft support is provided for the carpet which is readily deformable under pressure, so that the user can more easily walk over the carpet, while at the same time the carpet is protected from uneven wear arising from irregularities in the surface of the floor, for example, those arising from warping or distortion of the boards in the case of a wooden floor.

Further, by rendering the felt paper forming the lining moisture proof, the carpet is protected from any moisture which may arise from the floor, particularly where the floor is of wood and the boards are damp, or where the floor is a tiled floor and moisture has percolated between the tiles.

We are aware of the fact that it has already been proposed to make a floor covering of a felt paper rendered moisture proof by mixing the pulp or material to form the paper with a suitable waterproofing material such as pitch or asphalt, before the material was made into sheet form, i.e. into paper proper, but it has not hitherto been suggested to employ such a material as a lining for a carpet and to dispose the same between the carpet and the floor.

According to a further feature of this invention, we provide a carpet lining comprising a felt paper which, after the manufacture of the paper into sheet form, is coated or impregnated with a suitable moisture proofing material.

Conveniently, we may use pitch as our moisture proofing material and where this substance is employed it should be understood that any substance known commercially in the paper trade as "pitch" may be used, such term embracing of course bitumens, asphalt and the solid and semi-solid residues from oil, petrol, rubber and like distillations.

The paper may be impregnated or coated with the pitch by advancing the paper through a bath of melted pitch or over a roller which is partially immersed in the bath, or it may be advanced over or between rolls covered with pitch, which rolls may be heated as by passing steam therethrough in order to render the pitch sufficiently plastic, the so-coated paper being then passed between further rolls which serve to force the pitch into the interstices of the material.

Alternatively, the lining for the carpet may comprise two superimposed layers of felt paper with a layer of pitch therebetween and the pitch may be applied and the layers superimposed by means of the apparatus illustrated in our Complete Specification No. 452,370, the rolls 17 described in this Specification being in the present arrangement plain instead of corrugated.

With such a method of rendering the lining waterproof, it will be appreciated that a continuous layer of pitch is provided between the two layers of felt paper.

If desired, in addition to rendering the

[*Price* 1/-]

paper moisture-proof in the above manner, it may be coated or impregnated with a suitable insect-destroying or insect-repelling composition, for example, a composition which will render the felt moth-proof, and such composition may be mixed with the moisture-proofing material above referred to.

Dated this 9th day of July, 1938.
FORRESTER, KETLEY & CO.,
Chartered Patent Agents,
Central House,
75, New Street, Birmingham 2,
and
Jessel Chambers,
88/90, Chancery Lane, London, W.C.2.

COMPLETE SPECIFICATION

Improvements in or relating to Linings for Carpets

We, SMITH, STONE & KNIGHT, LIMITED, a British Company, of 84, Colmore Row, Birmingham, 3, in the County of Warwick, and THOMAS PARKER SMITH, a British Subject, of the Company's address, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

This invention relates to carpet linings of the kind adapted to be interposed between the carpet and the floor.

Hitherto such linings have usually been made of a felted, woollen or textile material, and one of the objects of the present invention is to provide a lining of an alternative material which will be of a sufficiently soft character.

According to this invention, we provide a carpet lining comprising a pre-formed sheet of felt paper which is coated with pitch on one or both sides.

By the term "felt paper" we mean paper known in the trade as "felt paper," such paper being soft, flexible and containing minute air spaces rendering it deformable under pressure. It may be made, for example, from bagging (i.e. waste sacks, fibre dust, waste papers), but it should be understood that we do not limit our invention to felt paper made from these particular materials.

The term "pitch," as understood in the paper trade, embraces bitumens, asphalt and the solid and semi-solid residues from oil, petrol, rubber and like distillations, any of which substances may be used as the coating medium.

The felt paper sheet may be coated by advancing it through a bath of melted pitch or over a roller which is partially immersed in such a bath, or it may be advanced over or between rolls covered with pitch, which rolls may be heated (as by passing steam therethrough) in order to render the pitch sufficiently plastic, the so-coated material being then passed between further rolls which serve to force the pitch into the interstices thereof.

Alternatively, the lining for the carpet may comprise two superimposed layers of felt paper with a layer of pitch therebetween, and the pitch may be applied and the layers superimposed by means of the apparatus illustrated in our prior Specification No. 452,370, the rolls 17 described in this Specification being, however, plain instead of corrugated. It will be appreciated that with the above method a continuous layer of pitch is provided between the two layers of felt paper.

If desired, in addition to treating the felt paper with pitch as above described, it may be coated or impregnated with a suitable insect-destroying or insect-repelling composition (for example, a composition which will render the felt paper moth-proof), and such composition may be mixed with the pitch.

In order that our invention may be clearly understood and more readily carried into practice, we have appended hereunto drawings illustrating the same, wherein :—

Figure 1 is a perspective view showing one form of the invention and its application as a lining for a carpet.

Figure 2 is a perspective view showing another form of the invention.

Figure 3 is a perspective view showing a further form of the invention.

Figure 4 is a perspective view showing a further form of the invention.

In the construction shown in Figure 1, the carpet lining consists of a pre-formed sheet 10 of felt paper which is moisture-proofed on one side by coating it with pitch, as at 11. In the drawing the sheet is shown with the pitch-coated side disposed downwardly, so that the underside of the carpet indicated at 9 is in contact with the felt paper 10 and not with the coating 11.

In the construction shown in Figure 2, a sheet of felt paper 10 is coated with pitch on both sides, as at 12, 13.

In Figure 3 two superimposed sheets 10 of felt paper are employed, and between them is a coating 14 of pitch. In practice

one side of each sheet 10 may be coated with the pitch, and the two sheets are then assembled with their coated faces in contact so that they adhere together. Alternatively, the pitch coating may be applied to only one of the sheets 10.

A further construction is shown in Figure 4, wherein a sheet 10 of felt paper is coated on both sides with pitch as shown at 15, 16, and in order to facilitate handling, covering sheets 17, 18 are applied to the coatings 15, and 16. The sheets 17 and 18 may be made of paper, and it will be understood that if required a covering sheet may be applied to only one of the coated surfaces.

A lining produced according to any of the above methods provides the carpet 9 with a soft support which is deformable under pressure, so that the user can more readily walk over the carpet, and the latter at the same time is protected from uneven wear resulting from irregularities in the floor; for example, those produced by washing or distortion of the boards in the case of a wooden floor.

Furthermore, the moisture-proofing of the felt paper by means of the pitch protects the carpet from contact with damp floor boards or from moisture which may percolate between the tiles of a tiled floor.

We are aware that is has already been proposed to interpose a sheet of paper felt between a carpet and the floor, the paper felt being secured to the floor by a coating of rubber cement on the latter and having a similar coating on its upper face which adheres to the vulcanized rubber backing of the carpet.

In a further prior proposal of which we are aware, a felt, paper or like floor covering has reinforcing elements incorporated therein while it is still soft and pulpy and is then saturated with bitumen or the like which binds the reinforcement to the base.

It has also been proposed to construct a floor covering from paper felt which is coated on one or both sides with an adhesive consisting of or containing rubber latex, a layer of butter muslin or like thin fabric being applied to the or each coated surface which may then be vulcanized.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is :—

1. A carpet lining comprising a preformed sheet of felt paper which is coated with pitch on one or both sides.

2. A carpet lining according to Claim 1, wherein either or each of the waterproofed surfaces is provided with a covering sheet of paper.

3. A carpet lining according to Claim 1, in which the carpet lining comprises two sheets of felt paper with a coating of pitch between them and operating to secure them together.

4. A carpet lining according to any of Claims 1 to 3, in which the carpet lining is coated or impregnated with insect-destroying or insect-repelling composition.

5. A carpet lining according to Claim 4, and wherein the insect-destroying or insect-repelling composition is mixed with the pitch.

6. A carpet lining substantially as described with reference to, and as shown in, any of the Figures of the accompanying drawing.

Dated the 26th day of August, 1939.

FORRESTER, KETLEY & CO.,
Chartered Patent Agents.
Central House,
75, New Street, Birmingham 2,
and
Jessel Chambers,
88/90, Chancery Lane, London, W.C.2.

Leamington Spa: Printed for His Majesty's Stationery Office, by the Courier Press.—1940.

FIG. 1.

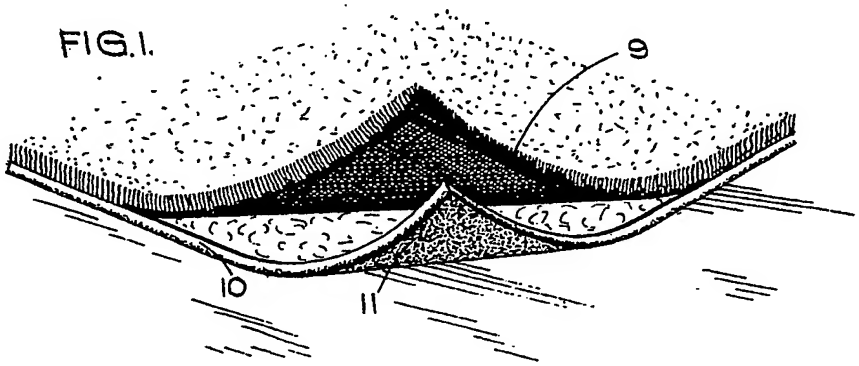


FIG. 3.

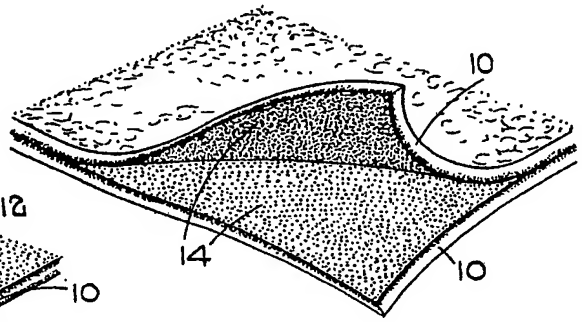


FIG. 2.

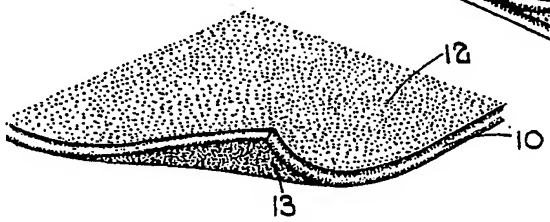
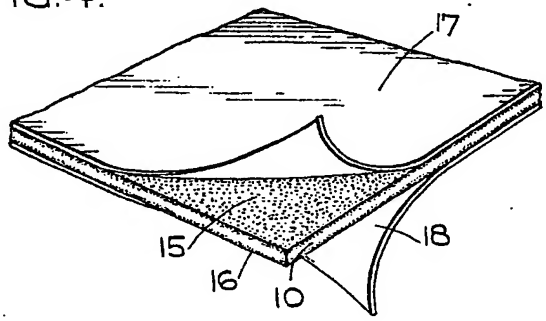


FIG. 4.



[This Drawing is a reproduction of the Original on a reduced scale.]

Malby & Sons, Photo-Lith.